

217 WIND FARM STANDARDS - COMMERCIAL

PURPOSE: This Article is adopted to assure that any development and production of wind-generated electricity in Jay County is safe and effective, to facilitate economic opportunities for local residents, and to provide a regulatory scheme for the construction and operation of Wind Energy Facilities in the county, subject to reasonable restriction, this will preserve the public health and safety.

DEFINITIONS:

WIND ENERGY CONVERSION SYSTEMS (WECS) - COMMERCIAL - All necessary devices that together convert wind energy into electricity and deliver that electricity to a utility's transmission lines, including but not limited to the rotor, nacelle, generator, WECS Tower, electrical components, WECS foundation, transformer, and electrical cabling from the WECS Tower, the substations, switching stations, meteorological towers, communications facilities and other required facilities and equipment, as related to the WECS project.

SUBSTATION (WECS) - An apparatus that connects the electrical collection system of the WECS and increases the voltage for connection with the utility's transmission lines.

SWITCHING STATION (WECS) - An apparatus / structure in the system similar to a substation but not necessarily increasing voltage into the grid.

WECS PROJECT - The collection of WECS (as defined) as specified in the siting approval application pursuant to this ordinance.

WECS TOWER - The support structure to which the nacelle and rotor are attached, freestanding or guyed structure that supports a wind turbine generator.

WECS TOWER HEIGHT - The distance from the rotor blade at its highest point to the top surface of the WECS foundation.

APPLICANT - The entity or person who submits to the County, an application for the siting of any WECS or Substation or thereafter operates or owns a WECS.

FINANCIAL ASSURANCE - Means reasonable assurance from a credit-worthy party, examples of which include a surety bond, trust instrument, cash escrow, or irrevocable letter of credit or combinations thereof.

OPERATOR - Means the entity responsible for the day-to-day operation and maintenance of the WECS, including any third party subcontractors.

OWNER - Means the entity or entities with an equity interest in the WECS(s), including their respective successors and assigns. Owner does not mean (i) the property owner from whom land is leased for locating the WECS (unless the property owner has an equity interest in the WECS; or (ii) any person holding a security interest in the WECS(s) solely to secure an extension of credit, or a person foreclosing on such security interest provided that after foreclosure, such person seeks to sell the WECS(s) within one year of such event.

PRIMARY STRUCTURE - Means, for each property, the structure that one or more persons occupy the majority of time on that property for either business or personal reasons. Primary Structure includes structures such as residences, commercial buildings, hospitals, and day care facilities. Primary Structure excludes structures such as hunting sheds, storage sheds, pool houses, unattached garages and barns.

PROFESSIONAL ENGINEER - Means a qualified individual who is licensed as a professional engineer in any state in the United States.

217.1 APPLICABILITY

This Article governs the siting of WECS(s) and Substations that generate electricity to be sold to wholesale or retail markets, except that owners of WECS(s) with an aggregate generating capacity of 3MW or less who locate the WECS(s) on their own property must obtain a variance to this Article. WECS may be sited in any area under the jurisdiction of the Jay County Zoning Ordinance.

217.2 PROHIBITION

No entity shall construct or operate a wind energy conversion system (WECS) without having fully complied with the provisions of this Ordinance.

217.3 APPLICATION REQUIREMENTS

Prior to the construction of a WECS, the Applicant shall obtain approval for the following:

1. An Application for the rezoning of the project properties to Industrial.
2. An Application for variances or special exceptions for any variances anticipated on the WECS Project.
3. An Improvement Location Permit from the Jay/Portland Building and Planning Department.

217.4 APPLICATION FOR REZONING

1. A WECS Project summary, including, to the extent available:
 - a. a general description of the project, including its approximate name plate generating capacity; the potential equipment manufacturer(s), types(s) of WECS(s), number of WECS(s), and name plate generating capacity of each WECS; the maximum height of the WECS Tower(s) and maximum diameter of the WECS(s) rotor(s); the general location of the project; and
 - b. a description of the Applicant, Owner, and Operator, including their respective business structures.
2. The names(s), address(es), and phone number(s) of the Applicant(s), Owner and Operator, and all property owner(s) with WECS on their properties, if known.
3. A topographic map of the project site and the surrounding area which shall encompass an area at least a quarter mile radius from the proposed project site with contours of not more than five foot intervals
4. A site plan at an appropriate scale showing (standard sheet of 36 inches by 24 inches and individual tower site not greater than 1 inch equals 20 feet); the proposed location of the wind energy facility (including planned locations of each WECS tower, guy lines and anchor bases (if any); WECS access roads; substations; electrical cabling; and ancillary equipment). In addition, the site plan shall show: primary structures within one quarter of one mile of any WECS; property lines, including identification of adjoining properties; setback lines; public roads; location of all above-ground utility lines within a distance of two (2) time the WECS tower height of any WECS tower; location of all existing underground utility lines associated with the WECS site; recognized historic or heritage sites as noted by the Division of Historic Preservation and Archeology of the Indiana Department of Natural Resources; and any wetlands based upon a delineation prepared in accordance with the applicable U.S. Army Corps of Engineer requirements and guidelines.
5. Location of all existing underground utility lines associated with the WECS site.
6. The fee applicable to the application for Rezoning shall be payable at the time of submission of the application, and such fee shall be \$20,000.00. The Application fee shall be used to defray the costs associated with the Application for Rezoning, including professional fees and expenses

217.5 APPLICATION FOR VARIANCES AND SPECIAL EXCEPTIONS

Application for Variances or Special Exceptions shall include the above information and the stated Variances or Special Exception desired. An application for special exception approval may be a combined application provided all property owners where the WECS facilities are to be located are co-applicants. The applicant may also submit a joint application for any variances that are needed for the project area.

217.6 APPLICATION FOR IMPROVEMENT LOCATION PERMIT

The Applicant shall apply to the Jay/Portland Building and Planning Department for an Improvement Location Permit. In addition to the information required on the Improvement Location Permit Application, the Applicant shall provide the following information to the Building department prior to the issuance of an Improvement Location Permit:

1. Location of all above-ground utility lines within a radius equal to two (2) times the height of the proposed WECS.
2. Location of all underground utility lines associated with the WECS site.
3. Dimensional representation of the structural components of the tower construction including the base and footings.
4. Schematic of electrical systems associated with the WECS including all existing and proposed electrical connections.
5. Manufacturer's specifications and installation and operation instructions or specific WECS design information.
6. Certification by a registered professional engineer that the tower design is sufficient to withstand wind load requirement for structure as defined by International Code Council.
7. All turbines shall be new equipment commercially available. Used, experimental or proto-type equipment still in testing shall be approved by the BZA as per the normal special exception process.
8. Necessary recorded access easements and necessary recorded utility easements, copies of which shall be submitted to the Building and Planning Department.
9. No appurtenances other than those associated with the wind turbine operations shall be connected to any wind tower except with express, written permission by the BZA.
10. A transportation plan showing how vehicles would access the site and describing the impacts of the proposed energy project on the local and regional road system during construction and operation.
11. A re-vegetation plan for restoring areas temporarily disturbed during construction.
12. A fire protection plan for construction and operation of the facility.
13. Any other item reasonably requested by the Building Department.
14. A drainage plan for construction and operation must be developed and approved by the Jay County Drainage Board.
15. An erosion control plan must be developed in consultation with the Indiana Department of Environmental Management Department (Rule 5).

Each WECS Tower shall require an Improvement Location Permit. The fee for each improvement Location Permit shall be \$2,500.00, which shall be used to defray the costs of professional services, as well as other expenses associated with the issuance of Improvement Location Permits

217.7 DESIGN AND INSTALLATION - WIND ENERGY CONVERSION SYSTEM (WECS) COMMERCIAL

Design Safety Certification - A Wind Energy Conversion System shall meet the following standards

- A. WECS shall conform to applicable industry standards. Applicant shall submit certificates of design compliance that wind turbine manufactures have obtained from Underwriters Laboratories, Det Norske Veritas, Germanischer Lloyd Wind Energie, or and equivalent third party.
- B. Following the granting of siting approval under this Ordinance, a Professional Engineer shall certify, as part of the building permit application that the foundation and tower design of the WECS is within accepted professional standards, given local soil and climate conditions.

217.8 Controls and Brakes: All WECS shall be equipped with a redundant braking system. This includes both aerodynamic over speed controls (including variable pitch, tip, and other similar systems) and mechanical brakes. Mechanical brakes shall be operated in a fail-safe mode. Stall regulation shall not be considered a sufficient braking system for over speed protection.

217.9 Electrical Components: All electrical components of the WECS shall conform to applicable local, state, and national codes, and relevant national and international standards. All WECS electrical collection cables between each WECS shall be located underground unless they are located on public or utility rights-of-way or with prior County approval. All transmission lines that are buried should be at a depth consistent with or greater than local utility and telecommunication underground line standards or as negotiated with the land owner or the land owner's designate until the same reach the property line or a substation adjacent to the property line.

217.10 Color: Towers and blades shall be painted with non-reflective white or gray color. The applicant shall comply with all applicable FAA requirements.

217.11 Warnings: A visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations. Visible, reflective, colored objects, such as flags, reflectors, or tape shall be placed on the anchor points of guy wires and along the guy wires up to a height of not more than 15 feet from the ground.

217.12 Climb Prevention: All WECS tower designs must include features to deter climbing or be protected by anti-climbing devices such as: 1) fences with locking portals at least 6 feet high, 2) anti-climbing devices 15 feet vertically from the base of the WECS tower, and/or 3) locked WECS tower doors.

217.13 Blade Clearance: The minimum distance between the ground and any protruding blade(s) utilized on a WECS shall be 15 feet, as measured at the lowest point of the arc of the blades. The minimum distance shall be increased as necessary to provide for vehicle clearance in locations where over-sized vehicles might travel.

217.14 Noise and Vibration Standards: At no point within 200 feet of a primary residence may the sound pressure levels from a wind turbine exceed the following sound levels. Sound levels shall be measured with an octave band analyzer or sound level meter and associated filter manufactured in compliance with standards prescribed by American National Standards Institute (ANSI). This standard shall supersede any noise standard(s) set forth in any Article of the Jay County Zoning Ordinance.

Octave Bands for Jay County in Hertz (Hz), per ANSI	Maximum Permitted Sound Level (in decibels) measured 200 feet from edge of any Primary Structure.
63	75
125	70
250	65
500	59
1000	53
2000	48
4000	44
8000	41

217.15 Utility Interconnection: The WECS, if interconnected to a utility system, shall meet the requirements for interconnection and operate as set forth in the electrical utility's then-current service regulations applicable to WECS.

217.16 Waste Management: All solid waste whether generated from supplies, equipment, parts, packaging, or operation or maintenance of the facility, including old parts and equipment, shall be removed from the site in a timely manner. All HAZARDOUS WASTE generated by the operation and maintenance of the facility, including but not limited to lubrication materials, shall, be handled in a manner consistent with all local, state and federal rules and regulations.

217.17 Lighting: All lighting shall also be in compliance with applicable FAA regulations. All lighting shall be shielded so that no glare extends substantially beyond the boundaries of the wind farm facilities.

217.18 Compliance with Additional Regulations: Any WECS thereof declared to be unsafe by the Jay/Portland Building and Planning Director by reason of inadequate maintenance, dilapidation, obsolescence, fire hazard, disaster, damage or abandonment is hereby declared to be a public nuisance and shall be abated by repair, rehabilitation, demolition or removal. Nothing in this Ordinance is intended to preempt other applicable state and federal laws and regulations.

217.19 Setbacks: Setbacks shall be as follows:

- A. No WECS shall be constructed in any setback, dedicated public easement or dedicated public right-of-way without prior written authorization from the county.
- B. Installation of any WECS may not be nearer than 350 feet or 1.1 times the height of the WECS tower. Whichever is greatest to any property lines, dedicated roadway, railroad right-of-way or overhead electrical transmission or distribution lines. Distance shall be measured from the center of the foundation at the base of the tower. New structures built adjacent to wind power facilities shall maintain these same minimum setback requirements. Participating landowners within the area comprising the WECS may waive side and rear property line setbacks with written approval from the landowners sharing such property line.
- C. Except as provided herein the setback distance for all turbines with a rated capacity of 1.0 MW or less shall be 1,000 feet or more from any existing or occupied residence and turbines with a greater rated capacity shall be set back 1,000 feet or more from any existing or occupied residence or from the boundary of any to which as of the date of approval of the WECS is in a platted subdivision and shall be setback from a property line 1.1 times the height of the turbine with the blade tip at its highest point. Distance shall be measured at the time of application for building permit from the center of the foundation at the base of the tower. A turbine with a capacity of 1.0 MW or less may be placed as near as 600 feet from an occupied residence with the prior written approval of the owner. The setback distance will be followed except in specific instances allowed by the Jay County Planning Commission.
- D. The setback distance from the WECS will be 1,500 feet from any platted community. Distance shall be measured from the center of the foundation at the base of the WECS to the closest Corporate Limit Boundary line.

217.20 Use of Roads/Services

An applicant, owner, or operator proposing to use any county road for the purpose of transporting WECS or substation parts and/or equipment for construction, operation, or maintenance of the WECS or substations, shall prior to construction:

- A. Identify all such public roads and services.
 - 1. Any proposed routes that will be used for construction and maintenance purposes shall be identified. If the route includes a public road, it must be approved by the Jay County Highway Supervisor. The Supervisor shall conduct a pre-construction baseline survey to determining existing road conditions for assessing potential future damage.

2. Any road damage caused by the construction of the WECS project equipment, the installation of same, or the removal of same, must be repaired to the satisfaction of the Jay County Highway Supervisor. The supervisor may choose to require either remediation of road damage upon completion of the project or is authorized to collect fees for oversized load permits. Further, a corporate surety bond in an amount to be fixed by a Professional Engineer may be required by the Supervisor to insure the county that future repairs are completed to the satisfaction of the county. The cost of bonding is to be paid by the applicant.
 3. Newly constructed WECS access roads may not impede the flow of water and shall comply with the County Drainage Ordinance.
- B. Requirements of the Indiana Department of Environmental Management Rule 5 will be required during construction of the WECS.
 - C. Any facility shall comply with existing septic and well regulation as required by the Jay County Health Department and the Indiana Department of Public Health.
 - D. All damages to waterways, drainage ditches, field tiles, or any other infrastructures caused by the construction or maintenance of the WECS, must be completely repaired to original or better condition, and so as not to impede the flow of water. All repairs must be completed within a reasonable amount of time.

217.21 Operation, Maintenance, and Inspection: The Owner or Operator of the WECS must submit, on an annual basis, a summary of the operation and maintenance reports to the County. In addition to the above annual summary, the Owner or Operator must furnish such operation and maintenance reports as the County reasonably requests. The following operation, maintenance and inspection standards shall be met.

- A. **Maintenance:** Any physical modification to the WECS that alters the mechanical load, mechanical load path, or major electrical components shall require re-certification. Like-kind replacements shall not require re-certification. Prior to making any physical modifications (other than a like-kind replacement), the owner or operator shall confer with the Building Inspector to determine whether the physical modification requires re-certification
- B. **Inspection:** The Jay County Building Inspector, along with licensed 3rd party professionals retained by the County for the specific purpose of conducting inspections of the WECS shall have the right, at any reasonable time and with sufficient prior notice, to accompany the owner or operator, or his agent, on the premises where a WECS has been constructed, to inspect all parts of said WECS installation and to require that repairs or alterations be made. The owner or operator of a WECS may retain a licensed 3rd party professional engineer familiar with WECS systems to prepare and submit to the Jay County Building Inspector which addresses the repairs or alterations requested and which suggest alternate methods for addressing the concerns or provides evidence that said repairs or alterations are unnecessary, within thirty (30) days after receiving notice from the Jay County Building Inspector that repairs or alterations are requested, or within a longer period of time mutually acceptable to both parties. The Jay County Building Inspector will consider any such written report and determine whether the repairs or alterations should be made as originally requested or as suggested in the written report. In the event of a dispute between the Jay County Building Inspector and the owner or operator, or a 3rd party professional engineer retained by them, as to the repairs or alterations which are required, the decision of the Building Inspector shall be final. Inspections, at a fee to be determined from time to time by the Jay County Commissioners and paid by the applicant, may be made by the Jay/Portland Building and Planning Department, or by a qualified inspector for equipment of this type selected by the Jay County Commissioners, no more than once annually to certify the safety and maintenance of the WECS and accessory structures.

- C. **Interference:** If, after construction of the WECS, the owner or operator receives a written complaint related to interference with local broadcast residential television, telecommunication, communication or microwave transmissions, the owner or operator shall take reasonable steps to respond to minimize the complaint.
- D. **Coordination with Local Fire Department:** The applicant, owner or operator shall submit to the local fire department, the owner or operator shall cooperate with the local fire department to develop the fire department's emergency response plan. Nothing in this section shall alleviate the need to comply with all other applicable fire laws and regulations.
- E. **Materials Handling, Storage and Disposal:**
 - 1. All solid wastes related to the construction, operation and maintenance of the WECS shall be removed from the site promptly and disposed of in accordance with all federal, state and local laws.
 - 2. All hazardous materials or waste related to the construction, operation and maintenance of the WECS shall be handled, stored, transported and disposed of in accordance with all applicable local, state and federal laws.

217.22 Liability Insurance: The owner or operator of the WECS shall maintain a current general liability policy covering bodily injury and property damage and name Jay County as an additional insured with limits of at least \$2 million per occurrence and \$5 million in the aggregate with a deductible of no more than \$5,000.

217.23 Decommissioning Plan: Prior to receiving siting approval under this Article, the County and the applicant, owner and/or operator must formulate a Decommissioning Plan to ensure that the WECS Project is properly decommissioned. The Decommissioning Plan shall include:

- A. Assurance that the facilities are properly decommissioned upon the end of the project life or facility abandonment. Applicant's obligations with respect to decommissioning shall include removal of all physical material pertaining to the project improvements to a depth of 48" beneath the soil surface, and restoration of the area occupied by the project improvements to the same or better condition that existed immediately before construction of such improvements. The property will then be returned from Industrial (I) to its original zoning designation. Prior to issuance of a building permit, the applicant shall provide a contractor cost estimate for demolition and removal of the WECS facility and will provide financial assurance in an amount at least equal to said demolition and removal contractor cost estimate, through the use of a bond, letter of credit or other security acceptable to the County, the cost of decommissioning each tower to be constructed under the building permit, which security shall be released when such tower is properly decommissioned as determined by the Jay County Building Inspector. In the event of abandonment by the owner or operator, the Applicant will provide an affidavit to the Jay County Building and Planning Department representing that all easements for wind turbines shall contain terms that provide financial assurance, including access to the salvage value of the equipment, for the property owners to ensure that facilities are properly decommissioned within twelve (12) months of expiration or earlier termination of the project.
- B. The applicant's, owner's, or operator's failure to comply with any of the above provisions shall constitute a default under this Ordinance.
- C. Prior to implementation of the existing county procedures for the resolution of each default, the appropriate county body shall first provide written notice to the owner and operator, setting forth the alleged default. Such written notice shall provide the owner and operator a reasonable time period, not to exceed 60 days, for good faith negotiations to resolve the alleged default.
- D. If the county determines, in its discretion, that the parties cannot resolve the alleged default within the good faith negotiation period, the existing county ordinance provisions addressing the resolution of such default shall govern.

217.24 Waiving Requirements: Requirements of these Articles may be waived by the Jay County Board of Zoning Appeals upon application and after public hearings.